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Some Iowa Waters

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SOME IOWA WATERS.

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1. *The Springville Water Supply.*

The source of the supply is an artesian well one hundred and fifty feet in depth. The water is quite free from organic contamination, and quite soft for an Eastern Iowa water. The numbers express the different amounts in one million parts of the water.

Total Solids	240.0
$CaCO_3$	101.4
$MgCO_3$	93.6
$CaSO_4$	20.4
Fe_2O_3 and Al_2O_3	19.4
$Si'O_2$	0.4
NaCl and KCl	4.8
CO_2 free and partly united	63.0
Free ammonia	0.05
Albuminoid ammonia	0.07
Nitrates	0.10

2. *The Spring at the Palisades.*

This is a well-known spring at the Palisades on the Cedar river. The figures express great freedom from organic contamination. The low temperature of the water indicates a deep-seated origin. The taste is agreeable and altogether the spring is a valuable one.

Total Solids	316.4
$CaCO_3$	175.8
$MgCO_3$	97.2
Fe_2O_3 and Al_2O_3	6.8
$Si'O_2$	9.8
NaCl and KCl	26.8
CO_2	168.00
Free ammonia	0.012
Albuminoid ammonia	0.00
Nitrates	0.634

3. *The Lisbon Water Supply.*

The supply comes from two sources: A spring twenty-four feet in diameter and twenty-four feet in depth; and from a well one hundred and forty-four feet deep. The water is pumped from the well into the spring, and thence into a standpipe, from which the town is supplied. The first analysis is of the water direct from the main, which is, therefore, a mixture of the spring and well water.

The results are as follows:

Total Solids	266.00
$CaCO_3$	119.6
$MgCO_3$	108.1
$CaSO_4$	36.4
Al_2O_3	4.06
NaCl and KCl	13.40
$Si'O_2$	9.86
CO_2	201.0
Free ammonia	0.056
Albuminoid ammonia	0.088
Nitrates	0.296

The water from the spring:

Total Solids	255.0
$CaCO_3$	117.4
$MgCO_3$	74.08
$CaSO_4$	33.60
Al_2O_3	4.46
$Si'O_2$	10.06
NaCl and KCl	14.40
CO_2	172.0
Free ammonia	0.00
Albuminoid ammonia	0.032
Nitrates	0.06

The water from the well:

Total Solids	288.20
$CaCO_3$	123.90
$MgCO_3$	106.20
$CaSO_4$	20.20
Al_2O_3	4.66
$Si'O_2$	5.00
NaCl and KCl	28.20
CO_2	388.70
Free ammonia	0.064
Albuminoid ammonia	0.088
Nitrates	0.296